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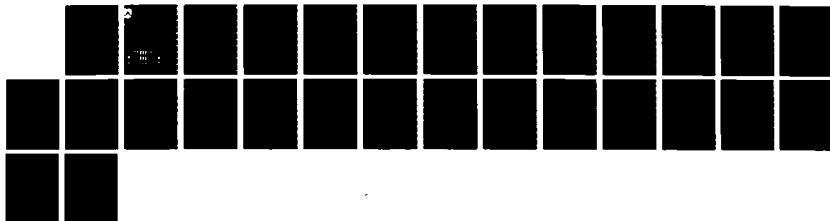
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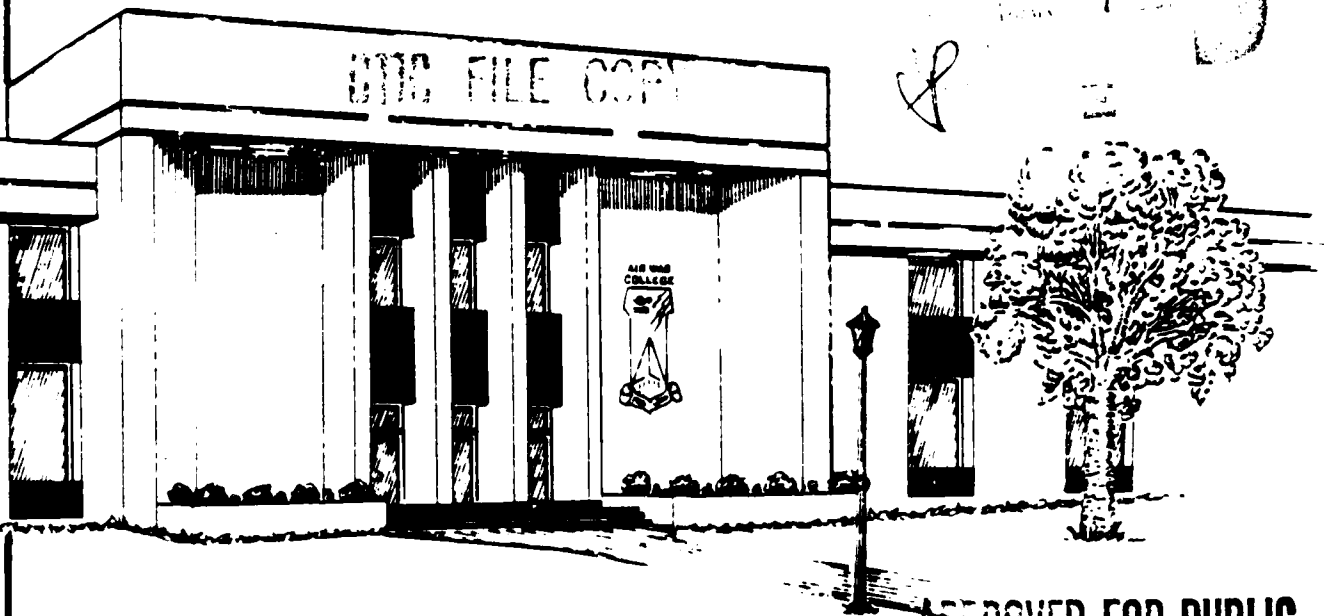
AIR WAR COLLEGE

RESEARCH REPORT

No. AU-AWC-86-019

NATO MILITARY STRATEGY AND FORCES

By LT COL VICTOR L. BEY



AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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AIR WAR COLLEGE
AIR UNIVERSITY

NATO MILITARY STRATEGY AND FORCES

by

Victor L. Bey
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A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH

REQUIREMENT

Research Advisor: Lt Colonel William E. Pecoul

MAXWELL AIR FORCE BASE, ALABAMA

January 1986

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: NATO Military Strategy and Forces

AUTHOR: Victor L. Bey, Lieutenant Colonel, USAF

This report assesses current NATO military defense strategy in relation to the Warsaw Pact threat. The chapters of the report look at defense strategy, discuss and compare NATO and Warsaw Pact forces and their deployment, and review nonmilitary problems affecting NATO's warfighting capabilities. Recommendations on how to improve NATO's military and nonmilitary problems affecting their warfighting capabilities are suggested.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Victor L. Bey (M. A., Central Michigan University) is an electronic warfare officer who has obtained experience in bomber defense while flying the B-52 and reconnaissance while flying the RC-135. He served as commander of the 343d Strategic Reconnaissance Squadron, Offutt AFB, Nebraska. Colonel Bey is a graduate of Squadron Officer School, Air Command and Staff College, Armed Forces Staff College, and Air War College.

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CHAPTER I

INTRODUCTION

Representatives of twelve nations met in Washington on April 4, 1949 and signed the North Atlantic Treaty, ending traditional American policy to avoid involvement in Europe during peacetime. With the signing, the United States became an active player in intra-European affairs. (9:ix) The NATO agreement is more than a military alliance where the members agree to come to the aid of each other in the event of armed attack. The NATO agreement also sought to eliminate conflict in international economic policies and encourage economic cooperation. (12:1) Since then four more nations have joined the Alliance; Spain the most recent member joining in 1982. The Treaty has no termination date and requires members to give one year's notice of their intention to withdraw. (26:69)

The North Atlantic Treaty Organization is on the upbeat. An organization that yet has room for improvement, it is far healthier than it has been for many years. Major strategic system additions include introduction of the NE-3A AWACS aircraft, the US Pershing II missiles, and ground-launched cruise missiles. US Army General Bernard W. Rogers, Supreme Allied Commander Europe, has also introduced a new controversial tactical concept for counterattacking Warsaw Pact air and ground forces far to the rear of the battlefield, Follow-On-Forces Attack (FOFA). (3:134,136)

The purpose of this report is to assess current NATO military defense strategy in relation to the Warsaw Pact threat. The report chapters will look at defense strategy, discuss and compare NATO and Warsaw Pact forces and their deployment, and review nonmilitary problems affecting NATO's

warfighting capabilities. The report will conclude with recommendations on how to improve NATO's military and nonmilitary problems affecting their warfighting capabilities.

CHAPTER II

NATO MILITARY STRATEGY FOR THE DEFENSE OF EUROPE

Over the past three decades, the NATO Alliance has made few changes in force posture or strategy. (21:18) NATO strategy has always been based on the concept of deterrence. For deterrence to be effective, a set sequence of costs or risks are defined in advance and make the consequences of aggression unacceptable. (16:70) When NATO was created, the United States possessed an overwhelming strategic nuclear superiority, and for the first two decades NATO was protected by this nuclear umbrella. During this period, NATO strategy emphasized massive nuclear response to any Soviet attack on any NATO member. This "Massive Retaliation" strategy was too inflexible and became untenable in the mid-1960's as the Soviet Union initiated a large strategic building program. As the Soviets were increasing their strategic capabilities, the United States, in contrast, decreased its spending. (21:18-19) NATO military strategy had to be adjusted.

"Flexible Response" strategy was first introduced in 1961 and was recognized by NATO in 1967 after France left the integrated military structure. Flexible response was based on two components: increased reliance on conventional forces in Europe and formulation of a nuclear doctrine that provided targeting options short of massive strikes. (21:18) Flexible response is dependent on the basic ability to select, in a timely manner, an appropriate military response based on the level of enemy aggression. For a successful flexible response strategy, three cornerstones of effective deterrence are required: credibility of political will, capability for military action, and ambiguity of escalatory intent. (2:144)

The NATO defense ministers have approved the new FOFA strategy concept. The new strategy will extend NATO's "flexible response" by raising the nuclear threshold and will rely on new conventional offensive weapons and targeting sensors. (19:78, 3:136) Dr. Kurt Leister, a recent West Germany Under Secretary of Defense said, "While conventional weapons cannot replace nuclear weapons, they can reduce our dependence on the early use of nuclear weapons." Another advantage of the strategy is that it would defeat most of the Warsaw Pact forces on their soil, not on west German terrain. (19:80) Proponents of FOFA believe that the reduced cost of micro-electronics will make funding possible within the current budget levels and could well lead to a workable way of standardizing weapons among NATO forces. (19:82, 3:136)

There are some problems with FOFA. The Warsaw Pact's targets are becoming more numerous and deadly; overlapping belts of fixed and mobile SAMs are being upgraded. Not only does this make NATO's air defense capability questionable, their ability to conduct conventional offensive air operations may be jeopardized. Without over-target reconnaissance capability, planners will not know where the choice targets will be between the FEBA (forward edge of the battle area) and 200 to 300 kilometers behind the FEBA. (3:139, 147)

Rapid reinforcement planning is a major element of NATO's strategy. It is accepted as valid that only through reinforcement of conventional forces can NATO counter a Soviet advance in superior strength without early use of nuclear weapons. (25:103) Reinforcement is a key deterrent measure in time of crisis when the situation is unknown. (1:52)

CHAPTER III

NATO DEPLOYMENT VIS-A-VIS THE WARSAW PACT THREAT

NATO military forces are present to meet the Warsaw Pact threat along more than 3000 miles of borders. (11:84) The NATO military forces are divided into three major military commands: Allied Command Europe (ACE), Allied Command Atlantic (ACLANT), and Allied Command Channel (ACCHAN). (12:1)

The Allied Command Europe is under the Command of the Supreme Allied Commander Europe (SACEUR). SACEUR has some 6,000 tactical nuclear warheads in his area. There are over 3,000 delivery vehicles spread among each NATO country except Luxembourg. All nuclear devices, except for some of the British weapons and the French tactical nuclear arms, are in American control. SACEUR commands about 66 division-equivalents in peacetime, and has some 3,500 tactical aircraft based on 200 NATO airfields. (26:70) ACE forces are split into five subordinate commands. Allied Forces Central Europe (AFCENT) defends the Central European Sector. Allied Forces Northern Europe (AFNORTH) defends Denmark, Norway, Schleswig-Holstein, and the Baltic approaches. Allied Forces Southern Europe (AFSOUTH) defends the sea lanes of communication in the Mediterranean and territories of Greece, Italy, and Turkey. The ACE Mobile Force (AMF) defends the northern and south-eastern flanks. The fifth command is the United Kingdom Air Forces (UKAIR). (26:70-71, 11:84)

The Allied Command Atlantic in wartime will participate in the strategic strike role and will protect sea communications in the North Atlantic. ACLANT patrols an area from the North Pole to the Tropic of Cancer, including Portuguese coastal waters. During peacetime ACLANT only

has four destroyer-type ships, but in wartime this Command will expand with vessels from seven nations. (26:71)

The Allied Command Channel in wartime will protect and control the English Channel and the southern North Sea. This fleet is comprised of the smaller warships from Belgium, Britain, and the Netherlands with cooperation from French naval forces. There is also a subordinate Standing Naval Force, Channel that consists of mine counter-measure ships. (26:72)

Soviet defense forces have been grouped into the Western, Southern, and Far Eastern Theaters. There is also a Central Strategic Reserve Area that comprises the Moscow, Volga, and Ural Military Districts. (27:89) The Warsaw Pact has 115 ground divisions considered already in position to theater NATO on all fronts. NATO has 88 divisions available to counter this threat. The Warsaw Pact divisions are smaller than the NATO divisions, but they have more tanks and artillery that give them equal combat power. When both sides are fully reinforced, NATO's disadvantage in numbers of ground divisions goes from 1.3 to 1 to almost 1.7 to 1. The imbalance of tanks deteriorates from almost 2 to 1 to 2.6 to 1, and artillery goes from 1.8 to 1 to 2.65 to 1. (6:28)

The Western Theater has the most modern equipment and is the strongest. It includes the non-Soviet Warsaw Pact nations and is subdivided into three Theaters of Military Operations (TVD): Western, North-Western, and South-Western TVD. The Western TVD could have four operational commands. Based on present deployments, two East Germany commands would have 12 tank and 13 motor rifle divisions, and Czechoslovakia and Poland would each have one command with a total of 14 tank and 16 motor rifle divisions. The North-Western TVD would comprise the Baltic Military

District which incorporates a Polish marine division and the Leningrad Military District. The national forces in Bulgaria, Romania, and Hungary would comprise the South-Western TVD. The Southern Theater are the forces that are opposite Turkey's eastern frontier. (27:89)

The Warsaw Pact outnumbers NATO more than five to one in interceptor aircraft (795 to 4,195). Along with the Warsaw Pact's interceptor force are mobile anti-aircraft missiles that outnumber NATO's three to one. NATO has 1,960 fighter-bombers for the attack of ground targets while the Warsaw Pact has 2,250. The Soviets are replacing present fighter-bombers with aircraft that have twice the payload, three times the range, higher speeds, and can penetrate NATO air defenses at lower altitudes. Still, NATO's air forces are qualitatively superior in training and weapons systems, and they maintain a higher state of readiness. (6:30)

A direct comparison between NATO and Warsaw Pact naval forces is not possible. The forces have exactly opposite missions. NATO's navies must keep the sea lanes open for reinforcements and materials and the Warsaw Pact's navies must close the sea lanes. By comparison, ten NATO aircraft carriers operate in the North Atlantic and adjacent waters to zero for the Warsaw Pact; two Soviet Kiev-class vessels were not included. On the other hand, the Warsaw Pact has 142 long-range attack submarines to 67 for NATO. (6:30) Unfortunately, it is easier for the Warsaw Pact to cut the shipping lanes than it is for NATO to keep them open.

CHAPTER IV

MILITARY ANALYSIS: NATO'S STRENGTHS AND WEAKNESSES IN MEETING THE WARSAW PACT THREAT

It is difficult to make an accurate assessment of the balance between NATO and the Warsaw Pact since the comparisons of manpower, units, and equipment contain large margins of uncertainty. Direct comparisons between specific items are also difficult; large differences in numbers may be offset by extreme differences in quality. (24:156, 15:31) Bearing this in mind, this section will attempt to assess NATO's strengths and weaknesses in meeting the Warsaw Pact threat.

Force Deployments

Force deployments not covered in Chapter III will be discussed in the following sections on strategic nuclear forces, theater nuclear forces, and conventional forces.

Strategic Nuclear Forces

The strategic nuclear forces for both NATO and the Warsaw Pact are essentially those of the United States and the Soviet Union. (22:165) Manned bombers, submarine launched missiles, and land based missiles provide the strategic nuclear forces for the U.S. nuclear triad. The United States has retired some weapon systems, but at the same time has introduced new systems into the inventory. Total deliverable megatonnage remains about the same. The new air-launched cruise missiles (ALCM) are being deployed to the B-52H bomber fleet, and new Ohio-class ballistic-missile nuclear submarines (SSBN) are on patrol. The MX

inter-continental ballistic missile program is still being funded and the first B-1B bomber squadron is being formed at this time. (27:85)

It must be kept in mind that once nuclear weapons are employed, Soviet strategy will be to use nuclear weapons as the main means of destroying the enemy in any confrontation. (20:47) To achieve this capability, the Soviet Union has an active strategic nuclear construction program. They are conducting late stage testing on the SS-X-24 and SS-X-25 ICBMs, they are increasing their Typhoon-class submarines and their Backfire bomber force, and they are deploying the new Blackjack A bomber and a new anti-ballistic missile in the near future. (27:89)

Theater Nuclear Forces

Without including a submarine-launched ballistic missile (SLBM) factor, the Warsaw Pact overall advantage in arriving warheads is about 3.6 to 1. (23:15) This lopsided balance, in the Pact's favor, is increasing. (12:2) One reason is the increase of Soviet SS-20 missiles. Also the Pact's aircraft are better able to penetrate and survive their targets than NATO's. This is because of newer Soviet aircraft and denser Warsaw Pact air defenses. (23:15)

NATO's decision to deploy 108 Pershing II and 464 ground-launched cruise missiles (GLCM) will significantly increase their capability. (21:20) This decision will greatly enhance NATO's nuclear deterrent force by giving them a modern capability to strike Soviet and other Warsaw Pact territory from NATO bases in Western Europe. (18:12)

There is continued political and West European anti-nuclear resistance to the deployment of cruise and Pershing II missiles. Many West Europeans perceive that nuclear force improvements will make nuclear

warfare in Europe more likely. They fear nuclear escalation and total destruction. The United States government, on the other hand, views the nuclear improvements as essential for deterrence. (12:2)

Conventional Forces

The quantity and quality of NATO and Warsaw Pact conventional forces was analyzed in Chapter III. This section will summarize that analysis.

The Warsaw Pact enjoys an advantage in almost every component of conventional forces in Europe. (21:22) The Pact possesses slightly more than a 2 to 1 advantage in divisions over NATO, but when overall manpower is compared, their advantage drops to 1.2 to 1. The Pact has about a 2.5 to 1 advantage in tanks and about a 2.8 to 1 advantage in artillery, but this comparison does not account for quality differences; NATO's artillery is a great deal better. Another factor in the comparison is reinforcement capability. NATO's capability is not as great as the Pact's, but at worst NATO's disadvantage will not exceed 2 to 1. (15:31)

The Warsaw Pact outnumbers NATO more than 5 to 1 in interceptor aircraft and 1.2 to 1 in fighter-bombers, but these numbers do not provide a true picture. NATO air forces maintain a high state of readiness and are qualitatively superior to those of the Warsaw Pact in terms of training and weapons systems. (6:30) Additionally, Germany is modernizing their air force with F-16 Falcon and F-15 Eagle aircraft. Three squadrons of F-16s and three squadrons of F-15s, with 24 aircraft per squadron, are already in place, with more to come. (10:20) However, the Warsaw Pact's large number of interceptors and surface-to-air missiles will give NATO's air forces a difficult task in providing close air support for NATO ground forces.

This is a critical factor, because NATO depends on its air forces to counter the numerical superiority in Pact ground force numbers. (24:158)

The Soviets have a maritime building program that is providing them with a sizable, balanced, technologically modern fleet. It covers all activities that can contribute to their becoming a sea power. (14:12) The fleet is designed to provide the capability of cutting the sea lines between Western Europe and its supplies. (28:18) This naval buildup requires NATO to take steps to preserve their favorable balance of maritime forces. (14:13)

The balance of conventional equipment is continuing to move in the favor of the East, and the West has lost its large technological edge. At this time no one can conclude that NATO would be defeated in war, and the Warsaw Pact can not believe they are in a position to undertake an attack. The conventional overall balance still makes military aggression a highly risky and undesirable undertaking. (24:158)

Command, Control, Communications, and Intelligence

There are four serious C3I problems facing NATO: interoperability, long-haul communications, no hardened microwave equipment, and Warsaw Pact communications jamming.

NATO has two kinds of C3I systems: those that belong to NATO and those owned by the allies. NATO is not ignoring the problem of incompatibility between communication systems. A 40-man international team is presently developing a long-term improvement program for C3I. (13:55) The Joint Tactical Information Distribution System or JTIDS is one of the best new programs in air defense, and the NATO E-3A Airborne Warning and Control System (AWACS) will have JTIDS. (13:57)

NATO relies primarily on microwave transmissions for long-haul communications to link commanders throughout Europe, and none of the microwave equipment or its power systems are hardened. Most of the microwave towers used for these communications are easily found on mountain tops and other detectable and targetable sites. Due to NATO's limited re-routing, if one of these towers is destroyed, a vital communication link will be disrupted. The tactical radio nets are not hardened, and during a nuclear attack, NATO could lose them. (13:56) The Soviet forces, unlike NATO's, have a extensive mobile communications system that will produce a highly complex, versatile, and redundant communications network throughout the Warsaw Pact. To help rebalance this situation, the United States and NATO are installing a secure telephone service for tactical network use, and automated message processing equipment is being hardened. Also NATO is replacing the old central dial offices with new switching equipment in semi-hardened shelters. (13:58)

Another problem is that NATO communication networks are vulnerable to Warsaw Pact jamming. (13:56) The Soviet air forces are accompanied by aircraft dedicated to jamming. At the same time, they have increased their emphasis on offensive, penetrating air forces equipped with ECM. The ground forces have new jammers and improved signal intelligence vehicles, and there are fixed jammers located throughout the Soviet Union. (13:57) It is questionable about how successful this jamming will be and how NATO can counter it. NATO does have one promising new countermeasure: the Precision Location and Strike System (PLSS). It can precisely locate and disable a mobile electronic emitter at long distances. (13:58)

Logistics

Each NATO nation must be able to equip their forces from the very moment a war starts, and they must aggressively pursue initiatives to sustain their forces and equipment. (17:102) Two of these initiatives are standardization and interoperability. With standardization and interoperability, NATO nations are capable of supporting each other in times of need. (4:65) This essential element of support defined as civil and military assistance rendered in wartime by a host nation to allied forces and NATO organizations located on or in transit through the host nation's territory is called wartime host nation support. (18:13)

Strategic lift capability is also an important factor affecting NATO's ability to meet its wartime commitments. The United States is still far short of the necessary air lift and sea lift. NATO also requires the intratheater lift capability needed to move forces and supplies from reception points and rear staging points to the forward combat areas. To offset the lacking intratheater lift, NATO is storing and maintaining combat equipment in theater. This concept, Prepositioned Organizational Material Configured in Unit Sets (POMCUS), allows a unit's required combat equipment to be prepositioned in a drive-away condition. For every 10,000 tons of materiel and equipment prepositioned forward, approximately 500 C-141 sorties are saved. The Air Force is also prepositioning some ground handling and other essential equipment in Europe. (18:12)

Both NATO and the Soviet Union will have problems protecting their merchant ships and the sea lift they provide. Merchant ships are larger, fewer and more specialized today than they were during the last war. They can cruise at speeds faster than NATO's escort force. On the other hand, the

Soviet Navy suffers considerable geographic constraints. Its Baltic and Black Sea fleets must transit narrow straits between NATO territories to reach open sea, and two remaining fleets must pass through waters that make them accessible to attack. (7:16-17)

The fact that the Warsaw Pact's equipment is standardized will help them to resupply more rapidly than NATO. Also the Soviet logistics system is an effective mixture of rail, road, and pipeline that will provide flexibility. They do not require sea lift; only the capability to stop NATO's sea traffic. (24:158)

CHAPTER V

NONMILITARY PROBLEMS AFFECTING NATO'S WARFIGHTING CAPABILITIES

To support NATO's readiness goals, each nation must be willing to provide mutual assistance. Politics and economics tend to make this difficult. Supporting a military force with required standardized equipment that is made in another country is expensive and produces serious internal economic and political problems. (17:103)

Internal problems have already cost NATO dearly. France left the military side of NATO in the early 1960s, and the United Kingdom withdrew its forward deployed forces in 1972. NATO's Southern Region has not been able to keep pace with the rest of NATO economically or politically. The Cyprus crisis of 1974 caused Greece to withdraw from NATO's military structure and caused the U.S. Congress to place a arms embargo on Turkey. Even though Greece has since returned to the military structure and the Turkey embargo is gone, the resentment towards the United States remains in both countries. High oil prices in the mid 1970s also caused Turkey serious economic problems. Their unemployment rate was about 25 percent, and their inflation rate was over 100 percent. Turkey has been successful in resolving some of these problems, but there remains the need for better military readiness. (5:55-56)

The current protests against the December 1979 decision to deploy cruise and Pershing missiles in Europe is another political problem for NATO. The wave of European public opinion favoring unilateral nuclear disarmament could leave NATO in ruins. The United States believes that modernization of nuclear forces in Western Europe is an essential deterrent

to a theater threat, but the West Europeans believe that nuclear improvements will make nuclear warfare in Europe more likely. (12:2)

Economic problems in NATO have caused defense expenditures to fall from 5.2 percent of GNP in 1974 to 4.3 percent of GNP in 1979. During this same time Soviet expenditures were about 11 to 13 percent of GNP. (21:22) In May 1978 the NATO Ministers agreed to increase defense spending by 3 percent in real terms, but they have been unable to meet this goal. Even so, an increase of 10 to 20 percent is required. (8:155) Until there is an upturn in NATO nations' economies, their military improvements will not keep pace with Warsaw Pact improvements.

CHAPTER VI

RECOMMENDATIONS

Recommendations will focus on five critical NATO weaknesses: command, control, and communication survivability and endurance, conventional force strength, standardization, stockpiles, and theater nuclear forces.

NATO's command, control, and communications networks will not survive or endure Warsaw Pact aggression. The Warsaw Pact will, without a doubt, initiate any conflict with sabotage, disruption, and destruction of NATO's communications systems. NATO must harden and secure their communications systems and at the same time increase interoperability. This will take time, but in the meantime NATO should practice communications out procedures during all exercises.

Flexible response with the new Follow-On-Forces Attack strategy may be the deterrent force NATO needs to continue keeping the peace, but the NATO nations must increase their conventional forces to prevent the Warsaw Pact from overwhelming the NATO forces. This could escalate what otherwise would have been a conventional conflict into a nuclear confrontation.

NATO must continue to place emphasis on standardization and interoperability of weapon systems. The F-15 Eagles and F-16 Falcons are just a small step in the right direction. Standardization will reduce costs and will increase efficiency. Also reinforcements can be obtained from a neighboring country while at the same time reducing intratheater lift delays.

NATO must increase the Prepositioned Organizational Material Configured in Unit Sets (POMCUS). POMCUS will offset NATO's lacking intratheater lift. Strong conventional forces are required to deter the possible use of nuclear weapons. It would be ironic for a nuclear war to start because NATO lacked the conventional munitions and supplies to stop Warsaw Pact forces.

The deployment of the cruise and Pershing II missiles must continue. These missiles will decrease the Pact's advantage of theater nuclear forces. It is imperative that West Europeans understand that these missiles will indeed deter, not escalate, nuclear destruction. Political and anti-nuclear resistance must not stop missile deployment. It would do well for the nations of western democracy to understand that NATO is and should always be a communion of shared interests rather than a dust-crowned defense plan, for as Robert Burns warned us.

"The best laid schemes o' mice an' men
Gang aft a-gley;
An' lea'e us naught but grief an' pain
for promise joy."

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